

What is claimed is:

1. A method for achieving linear engine thrust response comprising the steps of:  
measuring a throttle position (FNRQ);  
measuring a plurality of engine parameters;  
inputting said plurality of engine parameters and said throttle position into a plurality of schedules to produce a plurality of outputs;  
combining said plurality of outputs to produce a part power scheduled airflow (W2RSCH); and  
using said W2RSCH to produce a near linear thrust response of said engine.
2. The method of claim 1 wherein measuring said plurality of engine parameters comprises measuring said plurality of engine parameters selected from the group consisting of an intermediate power scheduled airflow (W2RINT), and an idle power schedule airflow (W2RID).
3. The method of claim 2 wherein said inputting said plurality of engine parameters into a plurality of schedules comprises the step of inputting said W2RID and said W2RINT into a first schedule to produce a W2RID index (W2RIDX) and a W2RINT index (W2RINTX).
4. The method of claim 3 wherein said inputting said plurality of engine parameters into a plurality of schedules comprises the step of inputting said W2RID and said W2RINT into a second schedule to produce a first output throttle position index FNRQX and a second output throttle position index FNRQY.
5. The method of claim 4 comprising the additional step of combining said FNRQX and said FNRQY to produce an FNRQ equivalent (FNRQEQ).
6. The method of claim 5 wherein said combining said FNRQX and said FNRQY comprises the step of combining said FNRQX and said FNRQY to produce said FNRQEQ according to an equation 
$$FNRQEQ = FNRQX + ((FNRQY - FNRQX) / \text{full range})(FNRQ - FNRQIDLE)$$
 where full range is (W2RINT - W2RID) and

FNRQIDLE is an idle throttle position of said engine.

7. The method of claim 6 wherein said inputting said plurality of engine parameters into a plurality of schedules comprises the step of inputting said FNRQEQ into a third schedule to produce a PLAX.
8. The method of claim 7 comprising the additional step combining said PLAX, said W2RIDX, and said W2RINX to produce a power part index (PLAIDX).
9. The method of claim 8 wherein said combining said PLAX, said W2RIDX, and said W2RINX comprises the step of combining said PLAX, said W2RIDX, and said W2RINX according to an equation  $PLAIDX = (PLAX - W2RIDX + \text{bias}) / (W2RINX - W2RIDX + \text{bias})$  where bias is approximately 0.0001.
10. The method of claim 9 wherein said combining said plurality of outputs to produce said W2RSCH comprises the step of combining said W2RID, said W2RINT, and said PLAIDX according to the equation  $W2RSCH = W2RID + PLAIDX(W2RINT - W2RID)$ .
11. The method of claim 1 wherein said using said part power scheduled airflow to produce said near linear thrust response of said engine comprises the step of using said W2RSCH to alter a fuel flow to said engine.
12. A system for achieving linear engine thrust response comprising:
  - means for measuring a throttle position (FNRQ);
  - means for measuring a plurality of engine parameters;
  - means for inputting said plurality of engine parameters and said throttle position into a plurality of schedules to produce a plurality of outputs;
  - means for combining said plurality of outputs to produce a part power scheduled airflow (W2RSCH); and
  - means for using said W2RSCH to produce a near linear thrust response of said engine.